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EXAMINER	
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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte ALAIN DELACHE and VERONIQUE DELACHE

Appeal 2008-2816
Application 10/506,979
Technology Center 3700

Decided: August 11, 2008

Before DONALD E. ADAMS, DEMETRA J. MILLS, and FRANCISCO C. PRATS, *Administrative Patent Judges*.

ADAMS, *Administrative Patent Judge*.

DECISION ON APPEAL

This appeal under 35 U.S.C. § 134 involves claims 9-17, the only claims pending in this application. We have jurisdiction under 35 U.S.C. § 6(b).

INTRODUCTION

The claims are directed to an apparatus to assist a patient's respiration by delivering air to a patient through a mask. Claim 9 is illustrative:

9. An apparatus to assist a patient's respiration by delivering air to a patient through a mask, comprising:

a blower to provide the patient with air under a treatment pressure,

a control unit to adjust the pressure delivered by said blower at the level of said mask,

a ramp module connected to the control unit in order to provide the control unit with a value of pressure P_M to settle at said mask, so that when said apparatus starts functioning, the pressure progressively rises until the pressure of treatment P_T, the rise of pressure until the pressure of treatment P_T corresponding to a ramp period; and

a comparator connected to the ramp module, at least one means for detecting the patient's breathing parameters during said ramp period and sending them to said comparator such that the comparator is able during this said ramp period to determine whether an event (E_1, E_2 or E_3) occurs in patient's breathing based on said breathing parameters and to send the corresponding data to the ramp module which provides the control unit with a value of pressure P_M that will speed up with respect of time during this said ramp period, so that the rise of pressure at patient's mask is accelerated within the same said ramp period.

The Examiner relies on the following prior art references to show unpatentability:

Matthews	US 2004/0187870 A1	Sep. 30, 2004

The rejection as presented by the Examiner is as follows:

Claims 9-17 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Matthews.

We reverse.

FINDINGS OF FACT (FF)

1. Matthews teaches a "pressure support system and method of treating disordered breathing that optimizes the pressure delivered to the patient to treat the disordered breathing while minimizing the delivered pressure for patient comfort" (Matthews Abstract).

2. More specifically Matthews teaches:

> [A]n auto-titration pressure support system that includes a pressure generating system adapted to generate a flow of breathing gas at a selectable pressure level, where the pressure level changes from a base pressure during a respiratory cycle. A patient circuit is provided having a first end that is adapted to be coupled to the pressure generating system and a second end that is adapted to be coupled to an airway of a patient. A monitoring system associated with the patient circuit or the pressure generating system measures a parameter indicative of a pressure at a patient's airway and a flow of gas in such a patient's airway and to output a pressure signal and a flow signal indicative thereof. A controller is coupled to the monitoring system and the pressure generating system. The controller controls the pressure generating system based on the output of the monitoring system, and is programmed to operate according to a set of prioritized control layers.

(Matthews 1-2: ¶ 0013.)

3. For clarity, we reproduce Matthews' figures 1 and 2 below:

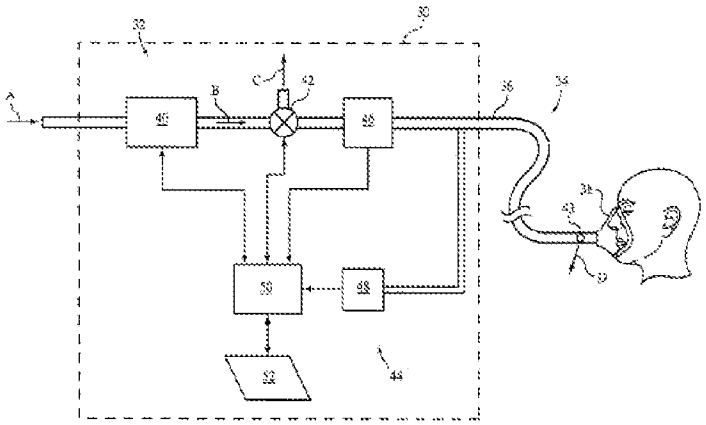

FIG. 1

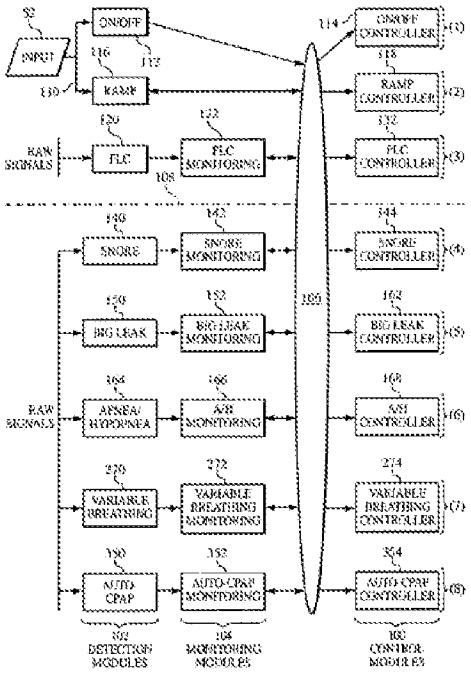

FIG. 2

"**FIG. 1** is a schematic diagram of a pressure support system adapted to operate according to the auto-titration technique of the present invention" (Matthews 2: ¶ 0022). "**FIG. 2** is a schematic diagram of a control system for implementing the auto-titration technique of the present invention" (Matthews 2: ¶ 0023). "Dashed line **108** in **FIG. 2** delineates a difference between control layers that are based on the conditions of the pressure support system and control layers that are based on the monitored condition of the patient" (Matthews 5: ¶ 0074).

4. Matthews teaches that a "[p]ressure generator **40** receives the breathing gas from a source of breathing gas . . . and outputs the breathing gas . . . to patient circuit **34** at a pressure that is greater than atmosphere for delivery to the airway of a patient" (Matthews 3: ¶ 0054). The Examiner refers to Matthews' pressure generator 40 as a "blower" (Ans. 3).

5. Matthews teaches a controller that provides a ramp that:

> [C]auses the pressure support system to reduce pressure to a lower setting, such as the system minimum, for a predetermined period of time or for a predetermined number of breathing cycles. The present invention also completes providing a pressure ramp to the patient using any conventional pressure ramping technique, rather than merely dropping the pressure.

(Matthews 6: ¶ 0080; Ans. 3).

6. Matthews teaches an "auto-CPAP controller **354** [that] initiates a recovery state in which the patient pressure is ramped up slowly" when initially turned on or in response to a return from a higher priority controller, e.g., the snore controller (Matthews 19: ¶ 0255). "During this ramping, the trend data is continually examined by auto-CPAP monitor **352** . . . to determine if the patient flow profile has experienced statistically significant[ ] degradation" (Matthews 19: ¶ 0256). According to Matthews:

> [If] the patient's inspiratory flow profile stays the same . . . auto-CPAP controller **354** decreases the pressure . . . [t]his sequence of pressure control is intended to determine if flow limitation exists . . . and to locate an ideal pressure at which flow limitation no longer exists. If flow limitation is detected during any hold period . . . the slow ramp up will again be initiated.

(Matthews 19: ¶ 0257.)

7. Matthews teaches a "[s]nore detection module **140** [which] provides an output to snore monitoring module **142** each time a snore event is declared" (Matthews 7: ¶ 0094). This module counts the number of snore events within a 30 second period (*id.*). If three snore events are detected within a 30 second period "the snore controller causes [the] pressure generating **32**

system to raise the pressure delivered to the patient" (Matthews 7: ¶¶ 0094-0095). The Examiner refers to this as a comparator (Ans. 3).

DISCUSSION

Claim 9 requires, *inter alia*, a comparator connected to the ramp module, at least one means for detecting a patient's breathing parameters during the ramp period and sending them to said comparator such that the comparator is able during this ramp period to determine whether an event (E_1, E_2 or E_3) occurs in a patient's breathing based on the breathing parameters and to send the corresponding data to the ramp module which provides the control unit with a value of pressure P_M that will speed up with respect of time during this ramp period, *so that the rise of pressure at the patient's mask is accelerated within the same ramp period.* Appellants assert that Matthews "discloses a conventional ramp control such that the ramp control layer does not cooperate with any of [Matthews'] . . . detection layers (App. Br. 5). More specifically, Appellants assert that Matthews' apparatus "is not able to modify [through a control unit] the ramping rise of pressure within the ramp period" in response to an event in a patient's breathing (App. Br. 5-6). The Examiner asserts that Matthews' snore monitoring module detects events in a patient's breathing parameters during the ramp period (Ans. 6).

Therefore, the issue presented to this panel is whether Matthews' apparatus detects an event (e.g., a snore event) during the ramp period and if so, whether the apparatus will respond to this event by a modification of the ramp period so that the rise of pressure at patient's mask is accelerated within the same ramp period.

Matthews' FIG. 2 illustrates a ramp controller 118 that is not based on the monitored condition of the patient (FF 3). Stated differently, the occurrence of an event in a patient's breathing will have no effect on the pressure of the ramp as it *is not* a control layer that is based on the monitored condition of a patient (*id.*). Matthews does, however, teach an auto-CPAP controller that *is* a control layer that is based on the monitored condition of a patient (FF 3 and 6). According to Matthews the auto-CPAP controller applies to the initial ramp, as well as a ramp phase resulting from a recovery phase resulting from an action taken by another controller (FF 6). While Matthews teaches that this controller monitors the ramp and may decrease the ramp pressure during the ramp phase – we do not find, and the Examiner has not identified a teaching in Matthews that this controller can accelerate the rise in pressure during the ramp phase as is required by Appellants' claimed invention. Stated differently, there is no evidence on this record that Matthews' apparatus is capable of being configured as is required by Appellants' claimed invention.

Accordingly, we find that the Examiner has failed to meet his burden of establishing that Matthews teaches every element of Appellants' claimed invention. To anticipate, every element and limitation of the claimed invention must be found in a single prior art reference, arranged as in the claim. *Karsten Mfg. Corp. v. Cleveland Golf Co.*, 242 F.3d 1376, 1383 (Fed. Cir. 2001).

Accordingly, we reverse the rejection of claims 9-17 under 35 U.S.C. § 102(e) as being anticipated by Matthews.

CONCLUSION

In summary, we reverse the rejection of record.

REVERSED

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